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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/292,758	04/14/99	BURMER	G 017473-00111

HM22/0731
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EXAMINER
SISSON, B

ART UNIT	PAPER NUMBER
1655	18

DATE MAILED:

07/31/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/292,758

Applicant(s)

BURMER ET AL.

Examiner

Bradley L. Sisson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-11, 29, 31-33, 38, 39, 55 and 62 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1-3, 6-11, 29, 31-33, 38, 39, 55 and 62 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. The use of the trademark TRITON X-100 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 6-11, and 31-33 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. See the Office action of 06 December 2000 for the basis of the rejection.

4. At pages 3-5 of the response of 09 April 2001 applicant presents traversal "[t]o the extent that the rejection applies to the claims as amended" (claims 29, 31, 38, and 55). As a first point, it is noted with particularity that no amendment has been made to claim

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31. An amendment to parent claim 29 has been made but there is no record of any amendment having been made to claim 31 per se.

5. As evidenced above, the rejection of claims 29, 38, 39, 55, 62, and 63 under 35 USC 112, first paragraph, has been withdrawn. While claim 31 does now, through its dependence to claim 29, include the positive recitation of specific nucleic acid sequences, the claim also encompasses "a plurality of probes each of which comprises a polynucleotide sequence associated with senescence." The specification does not provide an adequate written description of the genus of such sequences "associated with senescence."

6. In the case of claims 32 and 33 where the claims are drawn to the specific sequences being immobilized on a solid support which, as seen in claim 33 is "a chip," a review of the specification fails to find where any one of the claimed sequences has been immobilized on any solid support, much less a chip. Support for solid supports, in a general fashion, is found at page 38, line 24, bridging to page 39, line 20. A review of this passage is found to contain numerous suggestions as to how one may proceed in developing such a device, however, providing an invitation for others to experiment in the development of a device is distinct from reasonably suggesting that applicant was in possession of such a device. Accordingly, while the specification does teach and support the position of applicant having been in possession of the elected sequences, it does not support the position that applicant was also in possession of supports such as "chips" that comprise same. At best, applicant has provided guidance that may be construed to support an assertion of enablement for the making of a support comprising such sequences. However, an invitation to make such a composition, like disclosing a method

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for isolating specific cDNA sequences in *Lilly*, does not rise to the level of providing an adequate written description of the actual composition.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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10. Claims 29-31, 38, 39, 55, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Hillier et al. (Accession No. N53466).

Claims 29-33, 38, 39, 55, and 62 have been interpreted as encompassing not only the entire length of sequences represented by SEQ ID NOs, but also, portions thereof. Support for this interpretation is found in Claim 39 where it further limits the sequences represented by SEQ ID NOs to probes that have "about 10 nucleotides."

Thompson, column 3, bridging to column 4, discloses kits comprising probes as well as labeled nucleic acid probe.

Thompson does not disclose the claimed sequences.

Hillier et al. (Accession No. N53466) disclose applicant's SEQ ID NO: 55. A said sequence is described as being a human EST.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the human EST sequence, or portion thereof, into the kit of Thompson so to permit further evaluation of the EST as identification of EST sequences, and the human genome project in general, has been the focus of intense interest in the scientific community for several years.

11. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson and Hillier et al. (Accession No. N53466) as applied to claims 29-31, 38, 39, 55, and 62 above, and further in view of Sosnowski et al.

See above for the basis of the rejection as it relates to the disclosures of Thompson and Hillier et al.

Neither Thompson nor Hillier discloses a chip of sequences.

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Sosnowski et al., disclose a chip that comprises an array of sequences and that the sequences can be from about 10 bases in length or longer (column 32). The wide applicability of such a device is seen at column 29, et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in a kit a chip that presented immobilized nucleic acid sequences that, either with additional sequences such as that of Hillier et al., or separately, could be used in a variety of hybridization assays.

In view of the well developed nature of the art, the explicit teachings of how such chips could be synthesized, the explicit teachings of human EST sequences, and the profound interest in the art, the ordinary artisan would have been both highly motivated to have devised such a kit as well as have had a reasonably expectation of success in its production and utilization.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

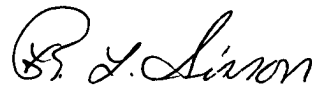
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (703) 308-3978. The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephanie Zitomer can be reached on (703) 308-3985. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3592 for regular communications and (703) 308-0294 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Bradley L. Sisson
Primary Examiner
Art Unit 1655

bls
July 26, 2001